



*Andrew Junkin
CFA, CIMA, CAIA
Managing Director*

May 27, 2007

Dr. Russell Read
Chief Investment Officer
California Public Employees' Retirement System
400 Q Street
Sacramento, CA 95814

Re: Dollar Denominated Fixed Income Program Revisions

Dear Russell,

You requested Wilshire's opinion with respect to Staff's recommendation for multiple revisions to the Dollar Denominated Fixed Income Program. Wilshire supports these revisions as they should allow Staff greater flexibility in areas where they have demonstrated skill.

There are two areas where Staff is seeking expanded capabilities: 1) a higher limit on high yield securities and 2) the ability to opportunistically be short to a limited degree in three sub-sectors of the fixed income universe. Wilshire will address each of these separately.

High Yield Revision

Staff is proposing changing the upper limit on high yield securities from 10% to 20% of the program. This limit would apply to the aggregate total of high yield securities, with lower limits on each of the allowed high yield sub-classes: corporate bonds, structured bonds (primarily commercial mortgage backed securities (CMBS) and asset backed securities (ABS)), and dollar denominated sovereign debt. High yield corporate bonds, both internally managed and externally managed, would be subject to a 15% limit. Structured bonds would be subject to a 5% limit. Sovereign debt would be subject to a 5% limit. Note that none of these sub-classes are near the current limits imposed by policy.

All three sub-classes are categorized as Opportunistic Investments as defined in the Dollar Denominated Fixed Income Policy. Other permitted Opportunistic Investments include bank loans, asset-based loans, non-investment grade CBO/CLO securities,

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convertible bonds and CMO residuals. In total, Opportunistic Investments are limited by policy to no more than 20% of the dollar denominated fixed income portfolio. Currently Opportunistic Investments total \$2.2 billion or less than 5% of the Dollar Denominated Fixed Income Program. This 20% limit would be unaffected by the change in the limit on overall high yield or on the limit on the three sub-classes. In effect, this proposed change gives Staff more flexibility within the Opportunistic Investment segment, but does not increase the overall amount of Opportunistic Investments that can be employed in the portfolio.

Staff has demonstrated the ability to add value in high yield investments, both internally managed and externally managed. As the chart below shows, the externally managed high yield portfolio composite has regularly outperformed the Citigroup High Yield Cash Pay Index. The internally managed high yield investments, which are more concentrated than the externally managed portfolios and focused on Staff's best ideas, have also outperformed on a long-term basis.

Performance as of March 31, 2007

	1Q07	1 Year	3 Years	5 Years
External High Yield Composite	3.7%	13.8%	11.2%	12.0%
Internal High Yield Portfolio	2.8%	10.1%	18.2%	16.0%
<i>Citigroup High Yield Cash Pay Index</i>	<i>2.4%</i>	<i>11.3%</i>	<i>8.2%</i>	<i>10.1%</i>

In addition, Staff has used allocations to high yield in a truly opportunistic fashion. Staff has held higher allocations of high yield securities when the yield advantage over investment grade securities has been relatively high and has systematically reduced the exposure when the yield advantage has been relatively low. The table below shows the total allocation to high yield securities as a percent of the total fixed income portfolio compared to the yield advantage (spread) over investment grade securities since the end of 2002.

Period Ending	HY Spread to Investment Grade	Allocation to HY
12/31/2002	8.02%	6.76%
3/31/2003	6.70%	7.16%
6/30/2003	5.27%	6.23%
9/30/2003	4.48%	6.12%
12/31/2003	3.25%	5.97%
3/31/2004	3.41%	5.05%
6/30/2004	3.36%	6.44%
9/30/2004	3.09%	5.10%
12/31/2004	2.38%	5.17%
3/31/2005	2.89%	5.05%
6/30/2005	3.24%	4.28%
9/30/2005	3.02%	4.39%
12/31/2005	3.17%	4.88%
3/31/2006	2.66%	4.39%
6/30/2006	2.79%	4.41%
9/30/2006	2.85%	2.71%
12/31/2006	2.36%	2.44%
3/31/2007	2.31%	2.37%

Wilshire views the 20% limit on Opportunistic Investments as being appropriate and the limit is comparable to what the majority of Core-Plus mandates allow. In addition, since all of the permissible types of Opportunistic Investments bear some measure of credit risk, this will not be a meaningful change to the overall risk profile of the portfolio. In fact, CalPERS risk group calculates the PAR effect of this change to be a 58 basis point increase at the Fixed Income portfolio level and a 9 basis point increase for the total fund. It should be noted that these PAR numbers assume the maximum allocation to high yield, which Staff may or may not ever reach. In addition, Staff's history indicates that higher allocations to high yield will only be made when spreads are wide, indicating attractive opportunities are available. When viewed in context of the returns generated by the overall high yield program, Wilshire views this as an appropriate trade off between risk and return. Therefore, Wilshire recommends that the Investment Committee approve this revision, subject to appropriate policy revision.

Opportunistic Shorting

Staff is also proposing allowing very limited shorting in the specific segments of the Dollar Denominated Fixed Income. Specifically, Staff is proposing opportunistic shorting of investment grade securities only for up to 5% of the corporate bond portfolio,

5% of the sovereign bond portfolio and 2% of the structured bond portfolio. The Investment Committee has already approved an expansion of the guidelines for the external international fixed income managers, which allows those managers to short securities up to 30% of the value of the portfolio. This proposal is more modest in terms of size and many of the key risks of shorting have been proactively addressed.

Shorting any security brings risks that must be understood and managed if the shorting program is to be successful. First, an investor must have the ability to short either physical or synthetic securities. When shorting physical bonds, an investor would borrow the bonds from another investor (through a custodial bank or prime broker) and sell them, with the expectation of buying them back at a lower price and delivering the securities bank, thus closing the transaction. However, specific issues of bonds may be difficult to source for borrowing purposes, making them “un-shortable.” In addition, if an investor has been able to short a specific bond, that investor may not be able to re-purchase the bond (due to limited supply, particularly during rallies). This would preclude the investor from being able to repay the securities loan. This would likely result in having to purchase the security at a significant premium, which would result in lower profits (or greater losses) for the shorting program.

Recognizing the limitations on shorting physical bonds, market participants have introduced a variety of swaps that enable investors to synthetically short specific securities or baskets of securities. Credit default swaps (CDS) and credit default index swaps (CDX) are two such instruments. CDS are swaps designed to transfer the credit exposure of a bond issuer between parties. CDS are structured around a reference entity, say XYZ Corporation, while CDX reference a basket of securities. When synthetically shorting through CDS, CalPERS would be hypothesizing that spreads on XYZ Corporation bonds would widen during the duration of the swap (in essence making the bonds cheaper). CalPERS would receive profits as if it had been short the physical securities, but swaps reduce the risk of physical delivery.

Swaps do involve counterparty risk, which is specifically addressed and mitigated by the requirements of Section IX of the Dollar Denominated Fixed Income Policy, titled “Derivatives and Leverage Policy.” Wilshire believes that the requirements of this section adequately address counterparty risk and delineates several methods Staff shall use to mitigate this risk.

As a practical matter, Staff will likely offset its synthetic short positions with synthetic long positions in other issuers. If offsetting positions are not used, Staff would be effectively reducing the portfolio’s exposure to any sector with short positions. For example, assume that the portfolio has a simple allocation of 50% corporate bonds and 50% treasury bonds. If Staff were to initiate short positions in specific corporate names that totaled 10% of the portfolio, the overall portfolio would only have 40% exposure to

corporate bonds (+long 50% - short 10%). If offsetting synthetic long positions were initiated (in different names, otherwise the positions would cancel), the portfolio would again have 50% exposure to corporate bonds.

This is not leverage in the sense that the portfolio has \$100 of bond market exposure for every \$100 in the portfolio. However, it would expose the portfolio to more than 100% of Staff's ability to add value through security selection. In the above example, the portfolio could benefit from having good security selection on the original 100% of the portfolio, plus the 10% synthetic short positions and the 10% synthetic long positions.

Another risk faced by short sellers is the potentially unlimited loss due to appreciation of the underlying security. For example, assume an investor shorts the stock of LMN Corporation at \$5 per share. The maximum potential profit to this investor is \$5 and would only be realized if the stock falls to \$0 (sell at \$5, buy at \$0 = \$5 profit). On the other hand, if the stock appreciates to \$200 per share, the investor's loss would be \$195 per share. Theoretically, there is no upper boundary to a stock price, so the potential loss is unlimited.

However, bond prices do have an upper limit, particularly at maturity. Most dollar denominated bonds are priced on a yield spread versus comparable treasury basis. Corporate bonds have credit risk and should always be priced at a positive spread to treasury bonds to compensate investors for this risk. Even agency bonds (which are not part of this proposal) trade at a positive spread to treasuries (around 35 basis points currently), since they are presumed to have more credit risk than treasury bonds do. Therefore, the price of a corporate bond is unlikely to appreciate significantly, unless it is driven by falling interest rates (at which point, all bond prices will rally, regardless of credit risk). Put simply, an investment grade bond that matures at 100 will never trade at 200 because the fortunes of the company have improved. High yield bonds might have prices that improve significantly if the company becomes fiscally healthy and Staff has specifically excluded high yield bonds from this proposed program in order to eliminate this risk.

Staff has demonstrated skill in managing the portfolios where shorting ability is being requested. As the chart below shows, the internally managed corporate portfolio, structured portfolio and sovereign portfolio have outperformed their appropriate benchmarks over a variety of time periods.

Performance as of March 31, 2007					
	1Q07	1 Year	3 Years	5 Years	10 Years
Internal Corporate Bonds	1.8%	8.4%	6.3%	8.8%	8.4%
<i>Lehman Long Corporate Index</i>	0.9%	7.8%	3.9%	7.8%	7.7%
Internal Structured Bonds	1.6%	7.3%	4.2%	5.4%	6.8%
<i>Citigroup Mortgage Index</i>	1.6%	7.0%	4.1%	5.0%	6.3%
<i>Lehman ABS Index</i>	1.4%	5.9%	3.0%	4.7%	6.1%
Internal Sovereign Bonds	1.6%	8.6%	5.0%	9.3%	9.5%
<i>Citigroup World Government Bond Index</i>	1.2%	7.8%	2.7%	9.0%	5.8%

It is important to note that Staff intends to only use this ability on an opportunistic basis. As Staff is reviewing the universe of available investments, attractive and unattractive securities are identified. Securities may be unattractive because the associate spread is tight (i.e., the yield is low) given the underlying fundamentals or because the underlying fundamentals are deteriorating. Staff does not anticipate that any shorting would be “permanent”, as is the case in the relaxed long only equity mandates. Rather, Staff would be judicious in selecting short opportunities and would look to exit them as circumstances warranted.

It will be important for Staff to monitor the impact of any shorting on the overall portfolio characteristics including duration, sector exposures, yield curve positioning, etc. Staff uses the BlackRock Aladdin portfolio monitoring system, one of the finest in the industry. This software is more than capable of adapting to short exposures and monitoring the characteristics of the long portfolio, the short portfolio and the combined portfolio.

Wilshire recently conducted a full review and analysis of the internally managed fixed income portfolios. Wilshire assigned a score of 244 points out of a possible 300, or 81%. In our review, Wilshire noted that Staff had top notch systems, gave the “Buy/Sell Discipline” category a perfect score (15 out of 15), and gave the “Market Anomaly/Inefficiency” category 35 points out of a possible 40.

Wilshire recommends that the Investment Committee approve Staff request for limited, opportunistic shorting. CalPERS’ risk group estimates that the PAR increase associated with this item to be 5 basis points at the Fixed Income portfolio level and 1 basis point at the total fund level. Given Staff has demonstrated meaningful skill in each of the areas where such authority is being requested, Wilshire views this as an appropriate tradeoff between risk and return.

Conclusion

Wilshire recommends that the Investment Committee approve of the proposed changes to the Dollar Denominated Fixed Income Program. Staff has demonstrated skill in managing high yield securities and has judiciously managed the size of the high yield program to adjust for changing market conditions. In addition, Staff has added value to each of the programs where a pilot program of opportunistic shorting is being proposed.

Should you require anything further or have any questions, please do not hesitate to contact us.

Best regards,

A handwritten signature in black ink, appearing to read "Ann J. Smith". The signature is fluid and cursive, with the first name "Ann" and last name "Smith" clearly distinguishable.